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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,404	09/24/2003	Viacheslav A. Petrov	UC0318 US NA	5035

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E I DU PONT DE NEMOURS AND COMPANY
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WILMINGTON, DE 19805

EXAMINER

KEYS, ROSALYND ANN

ART UNIT	PAPER NUMBER
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1621

NOTIFICATION DATE	DELIVERY MODE
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11/21/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary

Application No.

10/669,404

Applicant(s)

PETROV, VIACHESLAV A.

Examiner

Rosalynd Keys

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 and 10-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 2-8 and 10-17 are pending.

Claims 2-8 and 10-17 are rejected.

Claims 1 and 9 are cancelled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 2-8 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poetsch et al. (US 5,348,677).

Poetsch et al. teach compounds having a formula I, which have the same structural formula as the claimed compound structure (see entire disclosure, in particular column 3, lines 23-66; column 6, line 31 to column 8, line 62; column 9, lines 26-34 and column 17, lines 25-35).

Poetsch et al. teach electro-optical liquid crystal display elements containing their formula I

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compounds (see column 1, line 7 to column 2, line 28). Poetsch et al. teach that their liquid-crystalline dielectrics can be used in various electro-optical display elements (see column 1, lines 59 and 60). An OLED is a form of electro-optical display.

Poetsch et al. fail to expressly disclose the claimed organic active materials however their use is clearly suggested, i.e., as additives (see column 16, lines 23-40).

One having ordinary skill in the art at the time the invention was made would have found it obvious to combine the claimed organic active materials with the fluorine containing compounds of Poetsch et al. for use in liquid crystal display elements, since Poetsch et al. teach that their liquid-crystalline dielectrics can be modified by suitable additives in a such a way that they can be used in all of the disclosed types of liquid crystal display elements (see column 16, lines 23-26).

Poetsch et al. fail to expressly disclose the compounds of claim 6. However, Poetsch et al. suggest the compounds of claim 6 and the compounds expressly disclosed in example 1 of Poetsch et al. have close structural similarity and similar utility as the compounds of claim 6. Thus, the compounds of claim 6 are prima facie obvious over the compounds disclosed by Poetsch et al.

Again the Examiner wishes to direct the applicant's attention to MPEP 2111.02 (see above). The Examiner believes that the newly added preamble of "for an active layer of an OLED device, as disclosed in claim 6, is directed to the purpose or intended use of the solution comprising an organic active material and a compound having the claimed structure. Thus, the Examiner believes that the preamble is not considered a limitation and is of no significance to claim construction.

Response to Amendment

5. The rejection of claims 1-5 under 35 U.S.C. 103(a) as being unpatentable over Sanechika et al. (US 5,547,593) in view of JP 02227285 A) is withdrawn, since claim 1 has been cancelled and claims 2-5 now depend from claim 7.

Response to Arguments

6. Applicant's arguments filed August 24, 2007 have been fully considered but they are not persuasive.

The Applicants argue that there is no teaching or suggestion in Poetsch of the organic active materials recited in Applicant's claims; that the additives of Poetsch are those designed to improve liquid crystal function; and that none of the materials of Poetsch is the same as a fluorescent emitter, a phosphorescent emitter, a charge transport material, or a buffer layer material, as recited in Applicant's claims. One of ordinary skill in the art would not be led to take a small subset of the materials of Poetsch's formula I and add to them a fluorescent emitter, a phosphorescent emitter, a charge transport material, or a buffer layer material.

These arguments are not persuasive because the conductivity salts disclosed in column 16 of Poetsch et al. may be used as charge transport materials or buffer layer materials; the additives disclosed by Poetsch are also suitable for improving OLED function; and as disclosed earlier a conductivity salt is suitable for use as either a charge transport material or a buffer layer material. Further, one having ordinary skill in the art at the time the invention was made would have found it obvious to select a fluorescent emitter, a phosphorescent emitter, a charge transport material, or a buffer layer material, which is suitable for making an OLED if that is the form of electro-optical display element that the artisan desires to make.

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For the above reasons the Examiner believes that the instant claims are obvious over Poetsch et al. Thus, the rejection of claims 2-8 and 10-17 under 35 U.S.C. 103(a) as being unpatentable over Poetsch et al. (US 5,348,677) is maintained.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynn Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M, R & F 5:30-7:30 am & 1-5 pm; T & W 5:30 am-4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rosalynd Keys/
Primary Examiner
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November 12, 2007